

Compositionally Different Polymer-Based  
Sensor Elements And Methods For Preparing Same  
Abstract

The present invention provides a combinatorial approach  
5 for preparing arrays of chemically sensitive polymer-based  
sensors which are capable of detecting the presence of a  
chemical analyte in a fluid in contact therewith. The  
described methods and devices comprise combining varying  
ratios of at least first and second organic materials which,  
10 when combined, form a polymer or polymer blend that is  
capable of absorbing a chemical analyte, thereby providing a  
detectable response. The detectable response of the sensors  
prepared by this method is not linearly related to the mole  
fraction of at least one of the polymer-based components of  
15 the sensors, thereby making arrays of these sensors useful  
for a variety of sensing tasks.

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